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EXAMINER	
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ART UNIT	PAPER NUMBER
2136	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/530,074	REINER, RICHARD	
	Examiner	Art Unit	
	Rebecca L. Pachura	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 April 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/01/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. **Claims 1-26 are presented for examination.**

The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 04/01/2005 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Preliminary Amendment

3. The preliminary amendment submitted on 04/01/2005 is duly noted.

Oath/Declaration

4. The Oath/Declaration is objected to because the applicant fails to claim priority from the US provisional application 60415202 filed on 10/02/2002.

Priority

5. The claim for priority from the US provisional application 60415202 filed on 10/02/2002 is duly noted.

Specification

6. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text. The abstract must also be submitted separately from the priority document.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 25 recites the limitation "means for" in lines 2, 4, and 5. There is insufficient antecedent basis in the specification for this limitation in the claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 15, 16, 25, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claims 15 and 16 recites the limitation "said set of data elements" in lines 1-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 25 recites the limitation "means for" in lines 2, 4, and 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 26 recites the limitation "said requests" in lines 3 and 6. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. **Claim 24-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.** As to independent claims 24 and 26, in the preamble the applicant states "A computer readable medium containing computer executable instructions which, when loaded to a processor"; in the specification it states "software embodied in a computer readable medium 76, such as a computer diskette, a read-only memory (ROM) chip, or a file downloaded from a remote source" this statement indicates that the computer readable medium could be hardware or software. The computer readable medium must be tangibly embodied in some sort of hardware storage device. As to independent claim 25, in the preamble the applicant states that it is a system claim. In a system claim there must be a hardware component such as a processor or memory that the software modules are stored in or run on. Also in independent claim 25 lacks utility because there is no support in the specification for a "means for" claim. In view of the below sited MPEP section the claim is non-statutory because it is functional descriptive material per se.

> **MPEP 2106.01 [R-5]**
> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions," The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).)
> Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se, 33 F.3d at 1360, 31 USPQ2d at 1759.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

9. **Claims 1-5, 14-15, 17, and 21-26 are rejected under 35 U.S.C. 102(a) as being anticipated by US 6311278 (Moran).**

As to claim 1, Moran discloses a method for facilitating creation of rules for screening application layer requests (Moran column 2, lines 49-52), comprising: grouping application layer requests from a sample space of application layer requests (Moran column 3, lines 15-17) by a feature of said requests (Moran column 3, lines 1-5 and column 7, lines 13-18).

As to claim 2, Moran discloses the method of claim 1 wherein said feature is a segment of a destination address indicator (Moran column 5, lines 37-45).

As to claim 3, Moran discloses the method of claim 2 wherein said application layer requests are Hypertext Protocol (HTTP) requests and said destination address indicator is a Universal Resource Indicator (URI) (Moran column 5, lines 37-45).

As to claim 4, Moran discloses the method of claim 3 wherein said segment of said URI is a URI pathname extension (Moran column 5, lines 37-45).

As to claim 5, Moran discloses the method of claim 4 wherein URI pathname extensions used for said grouping are pre-determined (Moran column 3, lines 4-5).

As to claim 14, Moran discloses the method of claim 1 further comprising: obtaining a set of data templates applicable to each constituent type of said requests; obtaining a rule set for each requests grouping by: for each type of constituent of said requests, identifying names and associated data elements found in requests of said each requests grouping; for each name: obtaining a sample group of data elements, each data element associated with an instance of said each name; matching said sample group of data elements with a data element template; and binding a rule to said each name based on said matching data template (Moran column 5, lines 40-67 and column 6, lines 1-28).

As to claim 15, Moran discloses the method of claim 14 further comprising: for each name, determining a length of a longest data element in said set of data elements and binding a further rule to said each name stipulating a maximum permissible length of a data element as said length (Moran column 5, lines 49-55).

As to claim 17, Moran discloses the method of claim 14 further comprising, for each requests grouping, searching for an element that is present in each request of said each request grouping and, on finding a given element that is present in each request of said each requests grouping, establishing an existential rule for said each requests grouping requiring the existence of said given element (Moran column 3, lines 1-5 and 65-67 and column 4, lines 1-5).

As to claim 21, Moran discloses a method of creating a rule set for screening application layer requests, comprising: obtaining a set of data templates applicable to each constituent type of said requests (Moran column 2, lines 49-52); grouping application layer requests utilising one

or more grouping criteria (Moran column 3, lines 15-17); obtaining a rule set for each requests grouping by: for each type of constituent of said requests, identifying names and associated data elements found in requests of said each requests grouping; for each name: obtaining a sample group of data elements, each data element associated with an instance of said each name; matching said sample group of data elements with a data element template; and binding a rule to said each name based on said matching data template (Moran column 5, lines 40-67 and column 6, lines 1-28).

As to claim 22, Moran discloses a method for facilitating creation of a rule set for screening Hypertext Protocol (HTTP) requests (Moran column 2, lines 49-52), comprising: grouping HTTP requests from a sample space of HTTP requests (Moran column 3, lines 15-17) by Universal Resource Indicator (URI) pathname extensions of said requests (Moran column 3, lines 1-5, column 7, lines 13-18, and column 5, lines 37-45).

As to claim 23, Moran discloses a system for facilitating creation of rules for screening application layer requests (Moran column 2, lines 49-52), comprising: a database for storing a sample space of application layer requests (Moran column 3, lines 15-17); and a rule generator for grouping application layer requests from said sample space of application layer requests by a feature of said requests (Moran column 3, lines 1-5 and lines 15-17, column 7, lines 13-18).

As to claim 24, Moran discloses a computer readable medium containing computer executable instructions which, when loaded to a processor, adapt said processor to: group application layer requests from a sample space of application layer requests (Moran column 3, lines 15-17) by a feature of said requests (Moran column 3, lines 1-5, column 7, lines 13-18, and column 5, lines 37-45).

As to claim 25, Moran discloses a system for creating a rule set for screening application layer requests, comprising: means for obtaining a set of data templates applicable to each constituent type of said requests (Moran column 2, lines 49-52); means for grouping application layer requests utilising one or more grouping criteria (Moran column 3, lines 15-17); means for obtaining a rule set for each requests grouping by: for each type of constituent of said requests, identifying names and associated data elements found in requests of said each requests grouping; for each name: obtaining a sample group of data elements, each data element associated with an instance of said each name; matching said sample group of data elements with a data element template; and binding a rule to said each name based on said matching data template (Moran column 5, lines 40-67 and column 6, lines 1-28).

As to claim 26, Moran discloses a computer readable medium containing computer executable instructions which, when loaded to a processor, adapt said processor to: obtain a set of data templates applicable to each constituent type of said requests (Moran column 2, lines 49-52); group application layer requests utilising one or more grouping criteria (Moran column 3, lines 15-17); obtain a rule set for each requests grouping by: for each type of constituent of said requests, identifying names and associated data elements found in requests of said each requests grouping; for each name: obtaining a sample group of data elements, each data element associated with an instance of said each name; matching said sample group of data elements with a data element template; and binding a rule to said each name based on said matching data template (Moran column 5, lines 40-67 and column 6, lines 1-28).

27-31. (canceled)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. **Claims 6-13 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6311278 (Moran) as applied to claim 1 above, and further in view of US 20020143939 (Riddle).**

As to claim 6, Moran discloses the method of claim 4. Moran fails to teach wherein some URI pathname extensions used for said grouping are pre-determined and each one of others is determined as a URI pathname extension used in the URI of a threshold number of said requests.

However, Riddle discloses wherein some URI pathname extensions used for said grouping are pre-determined and each one of others is determined as a URI pathname extension used in the URI of a threshold number of said requests (Riddle page 8, paragraphs 0120, 0133, 0139, and 0142).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Riddle because Riddle facilitates the creation of rules more specifically (Riddle page 8, paragraphs 0120, 0133, 0139, and 0142).

As to claim 7, Moran discloses the method of claim 4. Moran fails to teach further comprising, for a residue of HTTP requests not grouped by said grouping, grouping requests of said residue by directory name prefix portions of URI pathnames of said residue.

However, Riddle discloses further comprising, for a residue of HTTP requests not grouped by said grouping, grouping requests of said residue by directory name prefix portions of URI pathnames of said residue (Riddle page 6, paragraph 0081).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Riddle because Riddle gives more explicit details as to what happens to the leftover requests in Moran (Riddle page 6, paragraph 0081).

As to claim 8, the modified Moran discloses the method of claim 7. The modified Moran fails to teach wherein said directory name prefix portions used for said grouping are pre-determined.

However, Riddle discloses wherein said directory name prefix portions used for said grouping are pre-determined (Riddle page 6, paragraph 0081).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Riddle because Riddle gives more explicit details as to what happens to the leftover requests in Moran (Riddle page 6, paragraph 0081).

As to claim 9, the modified Moran discloses the method of claim 7. The modified Moran fails to teach wherein some of said directory name prefix portions used for said grouping are pre-determined and each one of others is determined as a directory name prefix portion used in the URI of a threshold number of said requests.

However, Riddle disclose wherein some of said directory name prefix portions used for said grouping are pre-determined and each one of others is determined as a directory name prefix portion used in the URI of a threshold number of said requests (Riddle page 8, paragraph 0142).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Riddle because Riddle facilitates the creation of rules more specifically (Riddle page 8, paragraphs 0142).

As to claim 10, the modified Moran discloses the method of claim 7. The modified Moran fails to teach further comprising, for a second residue of HTTP requests not yet grouped, grouping requests of said second residue by string patterns within URI pathnames of said second residue.

However, Riddle disclose further comprising, for a second residue of HTTP requests not yet grouped, grouping requests of said second residue by string patterns within URI pathnames of said second residue (Riddle page 6, paragraph 0082 and page 9, paragraph 0166).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Riddle because Riddle gives more explicit details as to what happens to the leftover requests in Moran (Riddle page 6, paragraph 0082 and page 9, paragraph 0166).

As to claim 11, the modified Moran discloses the method of claim 10. The modified Moran fails to teach further comprising, for a third residue of HTTP requests not yet grouped, grouping a sub-set of requests of said third residue, each request of said sub-set having a common property.

However, Riddle disclose further comprising, for a third residue of HTTP requests not yet grouped, grouping a sub-set of requests of said third residue, each request of said sub-set having a common property (Riddle page 6, paragraphs 0081 and 0082).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Riddle because Riddle gives more explicit details as to what happens to the leftover requests in Moran (Riddle page 6, paragraphs 0081 and 0082).

As to claim 12, the modified Moran discloses the method of claim 11. The modified Moran fails to teach wherein said common property is a pre-determined content-type .

However, Riddle disclose wherein said common property is a pre-determined content-type (Riddle page 5, paragraph 0080).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Riddle because Riddle's specification of the traffic classification is more detailed (Riddle page 5, paragraph 0080).

As to claim 13, the modified Moran discloses the method of claim 11. The modified Moran fails to teach wherein said common property is one of a pre-determined content-type and a content-type used in a threshold number of said sub-set of requests.

However, Riddle disclose wherein said common property is one of a pre-determined content-type and a content-type used in a threshold number of said sub-set of requests (Riddle page 5, paragraph 0080 and page 6, paragraph 0081).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Riddle because Riddle's specification of the traffic classification is more detailed (Riddle page 5, paragraph 0080 and page 6, paragraph 0081).

As to claim 18, the modified Moran discloses the method of claim 17. The modified Moran fails to teach wherein, if said given element is found to be present in each request of said each requests grouping in at least a given number of instantiations, said existential rule for said

each requests grouping is established to require the existence of said given element in said minimum number of instantiations.

However, Riddle disclose wherein, if said given element is found to be present in each request of said each requests grouping in at least a given number of instantiations, said existential rule for said each requests grouping is established to require the existence of said given element in said minimum number of instantiations (Riddle page 8, paragraph 0142).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Riddle because Riddle facilitates the creation of rules more specifically (Riddle page 8, paragraphs 0142).

As to claim 19, the modified Moran discloses the method of claim 14. The modified Moran fails to teach further comprising, for each requests grouping, determining a statistical measure of a property of requests in said requests grouping and establishing a statistical rule for said each requests grouping based on said statistical measure.

However, Riddle disclose comprising, for each requests grouping, determining a statistical measure of a property of requests in said requests grouping and establishing a statistical rule for said each requests grouping based on said statistical measure (Riddle page 2, paragraph 0025).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Riddle because by Riddle applying a statistical measure to the traffic flow enhances the creation of rules (Riddle page 2, paragraph 0025).

As to claim 20, the modified Moran discloses the method of claim 14. The modified Moran fails to teach further comprising, for each requests grouping, establishing a trigger for

said rule set, said trigger comprising a feature by way of which said each requests grouping was formed.

However, Riddle disclose further comprising, for each requests grouping, establishing a trigger for said rule set, said trigger comprising a feature by way of which said each requests grouping was formed (Riddle page 2, paragraphs 0021-0022 and page 3, paragraphs 0037 and 0051).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Riddle because Moran creates a new rule when a trigger or a new rule is needed and Moran is just more specific about the creation (Riddle page 2, paragraphs 0021-0022 and page 3, paragraphs 0037 and 0051).

11. **Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6311278 (Moran) as applied to claim 14 above, and further in view of US 20030226038 (Raanan).**

As to claim 16, Moran discloses the method of claim 14. Moran fails to teach wherein, where said data elements in said set of data elements are numeric, determining a value of a largest valued data element in said set of data elements and a value of a smallest valued data element in said set of data elements and binding a further rule to said each name stipulating a maximum permissible value of a data element based on said value of said largest valued data element and a minimum permissible value based on said value of said smallest valued data element.

However, Raanan discloses wherein, where said data elements in said set of data elements are numeric, determining a value of a largest valued data element in said set of data

elements and a value of a smallest valued data element in said set of data elements and binding a further rule to said each name stipulating a maximum permissible value of a data element based on said value of said largest valued data element and a minimum permissible value based on said value of said smallest valued data element (Raanan page 2, paragraph 0032).

It would be obvious to one of ordinary skill in the art at the time of the applicant's invention to combine Moran and Raanan because Raanan facilitates the creation of rules more specifically (Raanan page 2, paragraph 0032).

Prior Art

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 7200684 is pertinent because it teaches…The data packets received at the root node of a sorting tree, are successively passed to each child node of the primary level of the tree until the predetermined node criteria of the child node are satisfied. The packets are then successively passed to the secondary level of the tree, when the child node in the secondary level does not satisfy predetermined node criteria. US 20020053033 is pertinent because it teaches… A method and apparatus ascertain which credential and which condition both from a network security policy best describe, respectively, information about initiator and target principals involved in an interaction, and tests performed on a state of an associated protocol event. US 20020093527 is pertinent because it teaches… A user interface for a network security policy monitoring system and method that performs network and security assessments based on system-wide policy, whereby real network traffic is analyzed to identify abnormalities, vulnerabilities, and incorrect configurations by listening on a network, logging events, and taking action.

US 5828846 is pertinent because it teaches… Passage of packets or messages is controlled between a device and a network via a virtual connection or flow which conforms to a predefined communication protocol. In connection with processing a packet or message that triggers a step in managing the virtual connection or flow, predefined authorization rules are applied to determine whether to permit the step to occur. In connection with processing a packet or message that does not trigger a step in managing the virtual connection or flow, the packet or message is permitted to pass directly via the virtual connection or flow, without applying the predefined authorization rules. US 7032072 is pertinent because it teaches… A method and apparatus for performing classification in a hierarchical classification system performing caching are described. In one embodiment, the method comprises walking a classification tree in the hierarchical classification system to determine whether an incoming flow matches a class in the classification tree, and performing a lookup on a cache storing a data structure of multiple classes of one classification type to compare the incoming flow with multiple classes at the same time to determine whether the incoming flow matches one of the classes.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rebecca L. Pachura whose telephone number is (571) 270-3402. The examiner can normally be reached on Monday-Thursday 7:30 am-6:00 pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on (571) 272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rebecca L Pachura/
Examiner, Art Unit 2136

/Nasser G Moazzami/
Supervisory Patent Examiner, Art Unit 2136